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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/580,907	05/30/2006	Hiroki Nakamaru	8003-1041	6842
<div>466 7590 10/09/2007 YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202</div> <div>EXAMINER LAVILLA, MICHAEL E</div> <div>ART UNIT PAPER NUMBER 1794</div> <div>MAIL DATE DELIVERY MODE 10/09/2007 PAPER</div>				

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/580,907

Applicant(s)

NAKAMARU ET AL.

Examiner

Michael La Villa

Art Unit

1775

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 20060530.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

DETAILED ACTION

Claim Objections

1. Claim 3 is objected to because of the following informalities: Regarding Claim 3, line 2, the word "comprises" should read "comprise." Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:
3. The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Regarding Claim 1, is unclear what is meant by the phrase "glycoluril resin." By convention, glycoluril is CAS Reg. No. 496-46-8, which corresponds to R1-R4 all being hydrogen atoms. Hence, it is unclear whether the claimed material requires that all of R1-R4 be hydrogen. If not, it would appear to be appropriate to use a different terminology to describe the range of structures contemplated or to insert a formula in the claim. The claim refers to "glycoluril resin." A resin is typically a polymer or a pre-polymer material, which may be an oligomer of the monomer, for example. It is unclear whether the claim terminology is limited to monomers, polymers, and condensation products, whether the terminology may encompass these, as well as a broader range of materials, and/or whether the terminology should be read to exclude monomer

materials as not being within the scope of a resin. Clarifying terminology may accompany an explanation so that the claimed scope is evident by the plain meaning of the text of the claim.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

8. Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Umino et al. WO 03/042427 in view of Applicant's Admissions. Umino et al.

teaches a coating composition for steel sheet having Zn/Ni galvanizing layer,

wherein the coating composition contains the claimed ingredients of metal ions,

water soluble organic resin, water dispersible organic resin, glycoluril resin, and

acid. See Umino et al. USPA 2004/0185261 (Abstract; paragraphs 14-30, 36-42;

60-85; Tables 1-8; and Claims)(translation of WO 03/042427). Umino et al. does

not teach that the steel sheet has been blackened prior to coating with the coating composition. Applicant's Admissions teach that blackening steel sheets having Zn/Ni galvanizing layers is conventional treatment for certain final uses of such steels sheets. See Specification (page 1, line 17 through page 2, line 10). It would have been obvious to one of ordinary skill in the art at the time of the invention to blacken the steel sheet of Umino et al. prior to coating with the coating composition of Umino et al. in order to render the steel sheet suitable for final uses that require a blackened surface as taught by Applicant's Admissions. Umino et al. refers to metal compounds, wherein the anion can be an acid anion, whereas applicant claims metal ions and acids. The metal ions are taught as possibly being derived from hydroxide compounds. When the acid and metal compound derived from hydroxide compounds are mixed with the other ingredients, it would be expected that the resulting mixture would be indistinguishable from one formed directly from metal compound that had dissolved. Umino teaches a range of resin ingredients and respective amounts. With respect to Claim 5, the claimed water soluble resin may be identified with Umino et al.'s epoxy having hydroxyl group resin, which is formed by reacting carboxyl group containing molecule. Umino teaches a variety of relative amounts of the various ingredients that renders the claimed relative amounts obvious variants if not specifically exemplified. Umino et al. teaches that acetate compounds may be used. Acetate is organic and is capable of coordinating with bivalent metals.

Conclusion


9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael La Villa whose telephone number is (571) 272-1539. The examiner can normally be reached on Monday through Friday.
10. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer McNeil can be reached on (571) 272-1540. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.
11. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Michael La Villa

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Michael La Villa
28 September 2007


MICHAEL E. LAVILLA PH.D.
PRIMARY EXAMINER